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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,405

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Santosh Shanbhag

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Wong Cabello Lutsch Rutherford & Brucculeri LLP
20333 Tomball Parkway, 6th Floor
Houston, TX 77070

EXAMINER

WON, MICHAEL YOUNG

ART UNIT

PAPER NUMBER

2455

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/767,405	Applicant(s) SHANBHAG ET AL.	
	Examiner MICHAEL Y. WON	Art Unit 2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-117 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9-13, 15, 17-21, 23, 25-32, 34, 36-43, 45, 47-54, 56, 58-65, 68-75, 78-85, 88-95, 98-103, 105, and 107-117 is/are rejected.
- 7) ☒ Claim(s) 6,8,14,16,22,24,33,35,44,46,55,57,66,67,76,77,86,87,96,97,104 and 106 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on June 24, 2009, PROSECUTION IS HEREBY REOPENED. A new rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31. A new notice of appeal fee and appeal brief fee will not be required for applicant to appeal from the new Office action. Any appeal brief filed on or after September 13, 2004 must comply with 37 CFR 41.37.

2. The Requirement for Restriction/Election mailed August 21, 2009 has been withdrawn

3. Claims 1-117 have been examined and are pending with this action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2455

4. Claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91 and 101 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. The invention as claimed neither recites a useful process, machine, manufacture, or composition of matter, or any new useful improvement. In fact, the independent claims merely recite the network architecture without claiming any utility for that architecture.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91 and 101 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91 and 101 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 101 recite the limitation "the device". There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the switch". There is insufficient antecedent basis for this limitation in the claim.

Claims 17, 39, 61, and 81 recite the limitation "said device". There is insufficient antecedent basis for this limitation in the claim.

Claims 28, 50, 74, and 91 recite the limitation "said switch". There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2455

7. Claims 1-4, 9-12, 15-20, 25-31, 36-42, 47-53, 58-64, 68-74, 78-84, 88-94, and 98-102 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5-7, 9-11, 13-18, 20-25, 27-32, 34-39, 41-46, 48-53, 55-60, and 62-65 of U.S. Patent No. 7,577,134. Claims 1-3, 5-7, 9-11, 13-18, 20-25, 27-32, 34-39, 41-46, 48-53, 55-60 of U.S. Patent No. 7,577,134 contain(s) every element of claims 1-4, 9-12, 15-20, 25-31, 36-42, 47-53, 58-64, 68-74, 78-84, 88-94, and 98-102 of the instant application and as such anticipate(s) claim(s) 1-4, 9-12, 15-20, 25-31, 36-42, 47-53, 58-64, 68-74, 78-84, 88-94, and 98-102 of the instant application.

“A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). “ ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

8. Claims 1-4, 9-12, 15-20, 25-31, 36-42, 47-53, 58-64, 68-74, 78-84, 88-94, and 98-102 are directed to an invention not patentably distinct from claims 1-3, 5-7, 9-11,

Art Unit: 2455

13-18, 20-25, 27-32, 34-39, 41-46, 48-53, 55-60, and 62-65 of U.S. Patent No.

7,577,134 herein refereed as Gopal Gowda et al.

INDEPENDENT:

As per **claim 1**, Gopal Gowda teaches a data switching device for connecting to a series of nodes and to a first fabric, the device comprising:

- a plurality of fabric ports for coupling to the series of nodes;
- at least one node port for connecting to the first fabric; and
- a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports (see col.10, claim 1).

As per **claim 9**, Gopal Gowda teaches a Fibre Channel switch for connecting to a series of nodes and to a first fabric, the switch comprising:

- a plurality of F__ports for coupling to the series of nodes;
- at least one N_port for connecting to the first fabric; and
- a switch circuit coupled to said plurality of F__ports and said at least one N_port for interconnecting said ports (see col.10-col.11, claim 5).

As per **claim 17**, Gopal Gowda teaches a network comprising:

- a series of nodes;
- a first fabric; and
- a data switching device connected to said series of nodes and to said first fabric, said device including:

Art Unit: 2455

a plurality of fabric ports coupled to said series of nodes;
at least one node port connected to said first fabric; and
a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports (see col.11, claim 9).

As per **claim 28**, Gopal Gowda teaches a network comprising:

a series of nodes;

a first fabric; and

a Fibre Channel switch connected to said series of nodes and to said first fabric,
said switch including:

a plurality of F_ports coupled to said series of nodes;

at least one N_port connected to said first fabric; and

a switch circuit coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports (see col.11, claim 16).

As per **claim 39**, Gopal Gowda further teaches a network comprising:

a series of nodes, each having two ports;

a first fabric; and

two data switching devices, each connected to one port of each of said series of nodes and to said first fabric, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

at least one node port connected to said first fabric; and

Art Unit: 2455

a switch coupled to said plurality of fabric ports and said at least one node port for interconnecting said ports (see col.12, claim 23).

As per **claim 50**, Gopal Gowda teaches a network comprising:

a series of nodes, each having two ports;

a first fabric; and

two Fibre Channel switches connected to one port of each of said series of nodes and to said first fabric, each said switch including:

a plurality of F_ports coupled to said one port of said series of nodes;

at least one N_port connected to said first fabric; and

a switch circuit coupled to said plurality of F_ports and said at least one N_port for interconnecting said ports (see col.12, claim 30).

As per **claim 61**, Gopal Gowda teaches a network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two data switching devices, each connected to one port of each of said series of nodes and to said first and second fabrics, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

two node ports, one connected to each of said first and second fabrics;

and

Art Unit: 2455

a switch coupled to said plurality of fabric ports and said two node ports for interconnecting said ports (see col.13, claim 37).

As per **claim 71**, Gopal Gowda teaches a network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two Fibre Channel switches connected to one port of each of said series of nodes and to said first and second fabrics, each said switch including:

a plurality of F_ports coupled to said one port of said series of nodes;

two N_ports, one connected to each of said first and second fabrics; and

a switch circuit coupled to said plurality of F_ports and said two N_ports for interconnecting said ports (see col.13, claim 44).

As per **claim 81**, Gopal Gowda teaches a network comprising:

a series of nodes, each having two ports;

first and second fabrics; and

two data switching devices, each connected to one port of each of said series of nodes and to one of said first and second fabrics, each said device including:

a plurality of fabric ports coupled to said one port of said series of nodes;

two node ports connected to one of said first and second fabrics; and

a switch coupled to said plurality of fabric ports and said two node ports for interconnecting said ports (see col.14, claim 51).

As per **claim 91**, Gopal Gowda teaches a network comprising:
a series of nodes, each having two ports;
first and second fabrics; and
two Fibre Channel switches connected to one port of each of said series of nodes and to one of said first and second fabrics, each said switch including:
a plurality of F__ports coupled to said one port of said series of nodes;
two N_ports connected to one of said first and second fabrics; and
a switch circuit coupled to said plurality of F_ports and said two N_ports for interconnecting said ports (see col.14-col.15, claim 58).

As per **claim 101**, Gopal Gowda teaches a method for routing between a series of nodes and a first fabric using a data switching device, the method comprising:
providing a plurality of fabric ports on the device coupled to the series of nodes;
providing at least one node port on the device connected to the first fabric; and
interconnecting said plurality of fabric ports and said at least one node port with the device (see col.15-col.16, claim 65).

DEPENDENT:

As per **claims 2, 10, 18, 29, 40, 51, 62, 72, 82, 92, and 102**, which respectively depend on claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91, and 101, Gopal Gowda further teaches wherein said at least one node port (N_port) operates as a virtual node port

Art Unit: 2455

(see col.3, lines 64-66), with one virtual node address for each of said plurality of fabric ports (F_ports) connected to nodes (see claims 1, 5, 9, 16, 23, 30, 37, 44, 51, 58, and 65 respectively).

As per **claims 3, 11, 19, 30, 41, 52, 63, 73, 83, and 93**, which respectively depend on claims 1, 9, 17, 28, 39, 50, 61, 71, 81, and 91, Gopal Gowda further teach wherein said switch (switch circuit) is further adapted to act as a firewall (see claims 2, 6, 10, 17, 24, 31, 38, 45, 52, and 59 respectively).

As per **claims 4, 12, 20, 31, 42, 53, 64, 74, 84, and 94**, which respectively depend on claims 1, 9, 17, 28, 39, 50, 61, 71, 81, and 91, Gopal Gowda further teach wherein said switch (switch circuit) is further adapted for intrusion detection (see claims 3, 7, 11, 18, 25, 32, 39, 46, 53, and 60 respectively).

As per **claims 25, 36, 47, 58, 68, 78, 88, and 98**, which respectively depend on claims 17, 28, 39, 50, 61, 71, 81, and 91, Gopal Gowda further teaches wherein said nodes are host computers (see claims 13, 20, 27, 34, 41, 48, 55, and 62 respectively).

As per **claims 26, 37, 48, 59, 69, 79, 89, and 99**, which respectively depend on claims 25, 36, 47, 58, 68, 78, 88, and 98, Gopal Gowda further teaches wherein said host computers are blade computers and are located in a blade server chassis (see claims 14, 21, 28, 35, 42, 49, 56, and 63 respectively).

As per **claims 27, 38, 49, 60, 70, 80, 90, and 100**, which respectively depend on claims 26, 37, 48, 59, 69, 79, 89, and 99, Gopal Gowda further teaches wherein said data switching device is a blade located in said blade server chassis (see claims 15, 22, 29, 36, 43, 50, 57, and 64 respectively).

9. Claims 5, 13, 21, 32, 43, 54, 65, 75, 85, 95, and 103 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 9, 16, 23, 30, 37, 44, 51, 58, and 65 respectively of Patent No. 7,577,134, in view of Warden et al. (US 7,385,982).

As per **claims 5, 13, 21, 32, 43, 54, 65, 75, 85, 95, and 103**, which respectively depend on claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91, and 101, Gopal Gowda does not explicitly teach further comprising:

at least one intermediate port coupled to said switch (switch circuit), wherein said switch routes frames between said plurality of fabric ports (F_ports) and said at least one node port (N_port) through said at least one intermediate port.

Warden teaches at least one intermediate port coupled to said switch (switch circuit), wherein said switch routes frames between said plurality of fabric ports (F_ports) and said at least one node port (N_port) through said at least one intermediate port (see Fig.3).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Gopal Gowda in view of Warden so that at least one intermediate port coupled to said switch (switch circuit), wherein said switch routes frames between said plurality of fabric ports (F_ports) and said at least one node port (N_port) through said at least one intermediate port. One would be motivated to do so because Warden teaches plural switches are included in the fabric (see col.4, lines 15-17).

As per **claims 7, 15, 23, 34, 45, 56, and 105**, which respectively depend on claims 5, 13, 21, 32, 43, 54, 103, Gopal Gowda does not explicitly teach wherein the number of intermediate ports equals the number of node ports (N_ports).

However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. Without reciting an explicit functionality, the number of intermediate ports compare to the number of node ports is merely subjective and will not distinguish the invention. Thus this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any number of intermediate ports and any number of node ports because such data does not functionally recite any steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

10. Claims 107-117 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 9, 16, 23, 30, 37, 44, 51, 58, and 65 respectively of Patent No. 7,577,134, in view of Emberty et al. (US 7,385,982).

As per **claims 107-117**, which respectively depend on claims 1, 9, 17, 28, 39, 50, 61, 71, 81, 91, and 101, Gopal Gowda does not explicitly teach wherein said plurality of fabric ports (F_ports) form a second fabric.

Art Unit: 2455

Emberty teaches wherein said plurality of fabric ports (F_ports) form a second fabric (see col.1, lines 31-35).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Gopal Gowda in view of Emberty so that plurality of fabric ports (F_ports) form a second fabric. One would be motivated to do so because Emberty teaches fabric ports within a network of switches are essentially termed a fabric (see col.1, lines 31-35).

Claim Objections

11. Claims **6, 8, 14, 16, 22, 24, 33, 35, 44, 46, 55, 57, 66, 67, 76, 77, 86, 87, 96, 97, 104, and 106** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of “wherein the interconnection between said at least one intermediate port and either said plurality of fabric ports (F_ports) or said at least one node port (N_port) is a private interconnection and said at least one intermediate port and said other port perform public to private and private to public address translations” as recited in independent claims 6, 14, 22, 33, 44, 55, 66, 76, 86, 96, and 104.

Art Unit: 2455

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of “wherein said switch performs public to private and private to public address translations between said plurality of fabric ports (F_ports) and said at least one node port (N_port)” as recited in dependent claims 8, 16, 24, 35, 46, 57, 67, 77, 87, 97, and 106.

Conclusion

13. For the reasons above, claims 1-5, 7, 9-13, 15, 17-21, 23, 25-32, 34, 36-43, 45, 47-54, 56, 58-65, 68-75, 78-85, 88-95, 98-103, 105, and 107-117 have been rejected, claims 6, 8, 14, 16, 22, 24, 33, 35, 44, 46, 55, 57, 66, 67, 76, 77, 86, 87, 96, 97, 104, and 106 have been objected and claim 1-117 remain pending.

14. An inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2455

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Won/

Primary Examiner

AU 2455

September 22, 2009